Algebra (ratios)

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

**Ratios**

**Write each ratio in three ways. Write your answer in simplest form.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 1. | http://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gif circles to triangles | | |  |  | | --- | --- | | 2. | http://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gif squares to total | |
| |  |  | | --- | --- | | 3. | http://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gif circle to all figures | | |  |  | | --- | --- | | 4. | http://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gif total to triangle | |
| |  |  | | --- | --- | | 5. | http://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gif all figures to circles | | |  |  | | --- | --- | | 6. | http://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gif squares to triangle | |

**Write each ratio in three ways. Write your answer in simplest form.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 7. | 14 black marbles, 11 blue marbles, and 5 violet marbles  ratio of blue marbles to violet marbles | | |  |  | | --- | --- | | 8. | 9 blue marbles, 3 brown marbles, and 15 violet marbles  ratio of all the marbles to violet marbles | |
| |  |  | | --- | --- | | 9. | 19 brown marbles and 3 violet marbles  ratio of violet marbles to brown marbles | | |  |  | | --- | --- | | 10. | 14 black marbles, 4 blue marbles, 11 brown marbles, and 19 violet marbles  ratio of all the marbles to violet marbles | |

**Complete each ratio table.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 11. | |  |  |  |  | | --- | --- | --- | --- | | 17 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 136 | | 11 | 33 | 44 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 12. | |  |  |  |  | | --- | --- | --- | --- | | 3 | 6 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 12 | | 4 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 12 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | | |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 13. | |  |  |  |  | | --- | --- | --- | --- | | 7 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 56 | 63 | | 8 | 32 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 14. | |  |  |  |  | | --- | --- | --- | --- | | 3 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 18 | | 1 | 2 | 4 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | | |

**Complete each ratio table.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 15. | |  |  |  |  | | --- | --- | --- | --- | | 18 | 144 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 152 | 171 | 57 | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 16. | |  |  |  |  | | --- | --- | --- | --- | | 120 | 12 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 24 | | 70 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 42 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | | |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 17. | |  |  |  |  | | --- | --- | --- | --- | | 45 | 90 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 120 | | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 102 | 17 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 18. | |  |  |  |  | | --- | --- | --- | --- | | 10 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 20 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | | 3 | 24 | http://www.edhelperclipart.com/clipart/math/mis31_51.gif | 9 | | |

**Write five equivalent ratios for each ratio.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 19. | 52:20 | | |  |  | | --- | --- | | 20. | 8 to 10 | | |  |  |  | | --- | --- | --- | | 21. | |  | | --- | | 9 http://www.edhelperclipart.com/clipart/fractdiv2.gif 13 | | |
| |  |  | | --- | --- | | 22. | 16:4 | | |  |  |  | | --- | --- | --- | | 23. | |  | | --- | | 6 http://www.edhelperclipart.com/clipart/fractdiv1.gif 9 | | | |  |  | | --- | --- | | 24. | 19 to 6 | |
| |  |  | | --- | --- | | 25. | 10 to 19 | | |  |  |  | | --- | --- | --- | | 26. | |  | | --- | | 20 http://www.edhelperclipart.com/clipart/fractdiv2.gif 18 | | | |  |  | | --- | --- | | 27. | 30 to 40 | |

**Write each ratio in simplest form.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | 28. | |  | | --- | | 10 http://www.edhelperclipart.com/clipart/fractdiv2.gif 14 | | | |  |  | | --- | --- | | 29. | 12:36 | | |  |  | | --- | --- | | 30. | 9:17 | | |  |  | | --- | --- | | 31. | 6:12 | | |  |  |  | | --- | --- | --- | | 32. | |  | | --- | | 32 http://www.edhelperclipart.com/clipart/fractdiv2.gif 48 | | |
| |  |  | | --- | --- | | 33. | 5 to 15 | | |  |  |  | | --- | --- | --- | | 34. | |  | | --- | | 65 http://www.edhelperclipart.com/clipart/fractdiv2.gif 55 | | | |  |  | | --- | --- | | 35. | 16:6 | | |  |  | | --- | --- | | 36. | 48 to 48 | | |  |  | | --- | --- | | 37. | 12 to 8 | |
| |  |  | | --- | --- | | 38. | 11 to 20 | | |  |  |  | | --- | --- | --- | | 39. | |  | | --- | | 30 http://www.edhelperclipart.com/clipart/fractdiv2.gif 48 | | | |  |  |  | | --- | --- | --- | | 40. | |  | | --- | | 14 http://www.edhelperclipart.com/clipart/fractdiv2.gif 42 | | | |  |  | | --- | --- | | 41. | 6:38 | | |  |  | | --- | --- | | 42. | 60:28 | |

**State whether the ratios are proportional. Write *yes* or *no*.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 43. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 30 http://www.edhelperclipart.com/clipart/fractdiv2.gif 5 | | = | |  | | --- | | 6 http://www.edhelperclipart.com/clipart/fractdiv2.gif 10 | | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 44. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 1 http://www.edhelperclipart.com/clipart/fractdiv2.gif 10 | | = | |  | | --- | | 4 http://www.edhelperclipart.com/clipart/fractdiv2.gif 40 | | |  |  |  | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 45. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 9 http://www.edhelperclipart.com/clipart/fractdiv1.gif 4 | | = | |  | | --- | | 8 http://www.edhelperclipart.com/clipart/fractdiv2.gif 18 | | |  |  |  | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 46. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 3 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1 | | = | |  | | --- | | 17 http://www.edhelperclipart.com/clipart/fractdiv2.gif 15 | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 47. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 52 http://www.edhelperclipart.com/clipart/fractdiv2.gif 42 | | = | |  | | --- | | 35 http://www.edhelperclipart.com/clipart/fractdiv2.gif 25 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 48. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 6 http://www.edhelperclipart.com/clipart/fractdiv1.gif 9 | | = | |  | | --- | | 20 http://www.edhelperclipart.com/clipart/fractdiv2.gif 30 | | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 49. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 36 http://www.edhelperclipart.com/clipart/fractdiv2.gif 13 | | = | |  | | --- | | 39 http://www.edhelperclipart.com/clipart/fractdiv2.gif 12 | | |  |  |  | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 50. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 36 http://www.edhelperclipart.com/clipart/fractdiv2.gif 12 | | = | |  | | --- | | 33 http://www.edhelperclipart.com/clipart/fractdiv2.gif 11 | | | |

**State whether the ratios are proportional. Write *yes* or *no*.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 51. | |  |  |  | | --- | --- | --- | | 2 to 4 | , | 2 to 1 | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 52. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 2 http://www.edhelperclipart.com/clipart/fractdiv1.gif 5 | | = | |  | | --- | | 20 http://www.edhelperclipart.com/clipart/fractdiv2.gif 50 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 53. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 11 http://www.edhelperclipart.com/clipart/fractdiv2.gif 8 | | = | |  | | --- | | 33 http://www.edhelperclipart.com/clipart/fractdiv2.gif 24 | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 54. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 3 http://www.edhelperclipart.com/clipart/fractdiv2.gif 10 | | = | |  | | --- | | 20 http://www.edhelperclipart.com/clipart/fractdiv2.gif 6 | | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 55. | |  |  |  | | --- | --- | --- | | 40 to 39 | , | 10 to 9 | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 56. | |  |  |  | | --- | --- | --- | | 35:21 | , | 15:9 | | |

**Find the missing number.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 57. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 8 http://www.edhelperclipart.com/clipart/fractdiv1.gif *n* | | = | |  | | --- | | 40 http://www.edhelperclipart.com/clipart/fractdiv2.gif 45 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 58. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 11 http://www.edhelperclipart.com/clipart/fractdiv2.gif 4 | | = | |  | | --- | | *n* http://www.edhelperclipart.com/clipart/fractdiv1.gif 8 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 59. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 10 http://www.edhelperclipart.com/clipart/fractdiv2.gif 6 | | = | |  | | --- | | 5 http://www.edhelperclipart.com/clipart/fractdiv1.gif *n* | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 60. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | *n* http://www.edhelperclipart.com/clipart/fractdiv1.gif 3 | | = | |  | | --- | | 2 http://www.edhelperclipart.com/clipart/fractdiv1.gif 6 | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 61. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 36 http://www.edhelperclipart.com/clipart/fractdiv2.gif 16 | | = | |  | | --- | | *n* http://www.edhelperclipart.com/clipart/fractdiv1.gif 4 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 62. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 25 http://www.edhelperclipart.com/clipart/fractdiv2.gif 20 | | = | |  | | --- | | 35 http://www.edhelperclipart.com/clipart/fractdiv2.gif *n* | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 63. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 40 http://www.edhelperclipart.com/clipart/fractdiv2.gif 12 | | = | |  | | --- | | *n* http://www.edhelperclipart.com/clipart/fractdiv2.gif 15 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 64. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | *n* http://www.edhelperclipart.com/clipart/fractdiv2.gif 36 | | = | |  | | --- | | 7 http://www.edhelperclipart.com/clipart/fractdiv1.gif 6 | | | |

**Find the missing number.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 65. | |  |  |  | | --- | --- | --- | | 5:8 | = | 25:*n* | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 66. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 2 http://www.edhelperclipart.com/clipart/fractdiv1.gif *n* | | = | |  | | --- | | 4 http://www.edhelperclipart.com/clipart/fractdiv1.gif 6 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 67. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | *n* http://www.edhelperclipart.com/clipart/fractdiv2.gif 20 | | = | |  | | --- | | 9 http://www.edhelperclipart.com/clipart/fractdiv1.gif 4 | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 68. | |  |  |  | | --- | --- | --- | | 9:11 | = | 18:*n* | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 69. | |  |  |  | | --- | --- | --- | | 18 to *n* | = | 36 to 6 | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 70. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 10 http://www.edhelperclipart.com/clipart/fractdiv2.gif 20 | | = | |  | | --- | | 22 http://www.edhelperclipart.com/clipart/fractdiv2.gif *n* | | | |

**Create a proportion from each set of numbers.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 71. | 2, 1, 50, 25 | | |  |  | | --- | --- | | 72. | 2, 23, 1, 46 | | |  |  | | --- | --- | | 73. | 6, 1, 36, 6 | |
| |  |  | | --- | --- | | 74. | 24, 28, 6, 7 | | |  |  | | --- | --- | | 75. | 18, 27, 14, 21 | | |  |  | | --- | --- | | 76. | 8, 12, 28, 42 | |

**Create a proportion from each set of numbers.  Only use 4 numbers from each set of numbers.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 77. | 28, 10, 7, 26, 40 | | |  |  | | --- | --- | | 78. | 45, 5, 1, 43, 9 | | |  |  | | --- | --- | | 79. | 46, 16, 1, 4, 4 | |
| |  |  | | --- | --- | | 80. | 34, 12, 7, 21, 4 | | |  |  | | --- | --- | | 81. | 5, 50, 20, 1, 10 | | |  |  | | --- | --- | | 82. | 25, 20, 35, 10, 8 | |

**Create a proportion from each set of numbers.  Only use 4 numbers from each set of numbers.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 83. | 44, 10, 51, 40, 11, 36 | | |  |  | | --- | --- | | 84. | 9, 41, 14, 18, 7, 52 | | |  |  | | --- | --- | | 85. | 45, 13, 3, 50, 5, 27 | |
| |  |  | | --- | --- | | 86. | 4, 49, 8, 2, 1, 45 | | |  |  | | --- | --- | | 87. | 18, 3, 14, 7, 42, 56 | | |  |  | | --- | --- | | 88. | 50, 25, 12, 20, 32, 40 | |

**Fill in the blank.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 89. | 740 meters in 10 seconds  =  \_\_\_\_\_\_   meters in 2 seconds | | |  |  | | --- | --- | | 90. | 374 miles in 1 hour  =  \_\_\_\_\_\_   miles in 3 hours | |
| |  |  | | --- | --- | | 91. | 66 seats in 3 rows  =  \_\_\_\_\_\_   seats in 12 rows | | |  |  | | --- | --- | | 92. | 1,168 pages in 8 days  =  \_\_\_\_\_\_   pages in 4 days | |
| |  |  | | --- | --- | | 93. | 8 calls in 4 hours  =  \_\_\_\_\_\_   calls in 16 hours | | |  |  | | --- | --- | | 94. | 20 calls in 5 hours  =  \_\_\_\_\_\_   calls in 1 hour | |

**Find the unit rate.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 95. | 40 seats in 5 rows | | |  |  | | --- | --- | | 96. | 934 miles in 2 hours | |
| |  |  | | --- | --- | | 97. | 984 meters in 12 seconds | | |  |  | | --- | --- | | 98. | 8 calls in 4 hours | |
| |  |  | | --- | --- | | 99. | 1,170 pages in 9 days | | |  |  | | --- | --- | | 100. | 3,864 miles in 8 hours | |

**Fill in the blank.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 101. | 30 calls in 6 hours  =  \_\_\_\_\_\_   calls in 10 hours | | |  |  | | --- | --- | | 102. | 224 meters in 4 seconds  =  \_\_\_\_\_\_   meters in 7 seconds | |
| |  |  | | --- | --- | | 103. | 126 seats in 9 rows  =  \_\_\_\_\_\_   seats in 10 rows | | |  |  | | --- | --- | | 104. | 1,230 miles in 3 hours  =  \_\_\_\_\_\_   miles in 12 hours | |
| |  |  | | --- | --- | | 105. | 850 pages in 10 days  =  \_\_\_\_\_\_   pages in 8 days | | |  |  | | --- | --- | | 106. | 660 meters in 11 seconds  =  \_\_\_\_\_\_   meters in 9 seconds | |

**Circle the better buy. Explain why it is the better buy.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 107. | |  |  |  | | --- | --- | --- | | 35 batteries for $41.30 |  | 39 batteries for $58.11 | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 108. | |  |  |  | | --- | --- | --- | | 11 calculators for $198 |  | 21 calculators for $525 | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 109. | |  |  |  | | --- | --- | --- | | $11.10 for 37 ounces |  | $9.88 for 26 ounces | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 110. | |  |  |  | | --- | --- | --- | | $52.49 for 29 batteries |  | $3.86 for 2 batteries | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 111. | |  |  |  | | --- | --- | --- | | 38 staplers for $646 |  | 7 staplers for $84 | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 112. | |  |  |  | | --- | --- | --- | | 23 liters for $14.26 |  | 29 liters for $19.72 | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 113. | |  |  |  | | --- | --- | --- | | $1.84 for 4 ounces |  | $0.84 for 3 ounces | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 114. | |  |  |  | | --- | --- | --- | | 19 liters for $8.17 |  | 31 liters for $10.23 | | |

**Use a proportion to find the unknown length in the pair of similar figures.  
(*drawings are not drawn to scale*)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 115. | http://www.edhelperclipart.com/clipart/ratiosrec4.gifhttp://www.edhelperclipart.com/clipart/ratiosrec1.gif length of sides:   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | | OP  = | 11 km | | PM  = | \_\_\_\_\_\_\_\_ | | MN  = | 11 km | | NO  = | 4 km | |  | |  |  | | --- | --- | | AB  = | 22 km | | CD  = | 22 km | | DA  = | 8 km | | BC  = | 8 km | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 116. | http://www.edhelperclipart.com/clipart/ratiostri3.gifhttp://www.edhelperclipart.com/clipart/ratiostri1.gif length of sides:   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | | GI  = | \_\_\_\_\_\_\_\_ | | IH  = | 70 yd | | GH  = | 56 yd | |  | |  |  | | --- | --- | | AC  = | 105 yd | | CB  = | 150 yd | | AB  = | 120 yd | | | |

**Write each ratio in simplest form.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 117. | 44 to 48 | | |  |  | | --- | --- | | 118. | 12:36 | | |  |  |  | | --- | --- | --- | | 119. | |  | | --- | | 70 http://www.edhelperclipart.com/clipart/fractdiv2.gif 28 | | | |  |  | | --- | --- | | 120. | 54 to 51 | | |  |  | | --- | --- | | 121. | 2:15 | |
| |  |  |  | | --- | --- | --- | | 122. | |  | | --- | | 3 http://www.edhelperclipart.com/clipart/fractdiv1.gif 3 | | | |  |  | | --- | --- | | 123. | 42 to 42 | | |  |  | | --- | --- | | 124. | 20:6 | | |  |  |  | | --- | --- | --- | | 125. | |  | | --- | | 12 http://www.edhelperclipart.com/clipart/fractdiv2.gif 3 | | | |  |  | | --- | --- | | 126. | 60:32 | |
| |  |  |  | | --- | --- | --- | | 127. | |  | | --- | | 25 http://www.edhelperclipart.com/clipart/fractdiv2.gif 45 | | | |  |  | | --- | --- | | 128. | 9 to 18 | | |  |  | | --- | --- | | 129. | 55 to 55 | | |  |  | | --- | --- | | 130. | 2 to 10 | | |  |  |  | | --- | --- | --- | | 131. | |  | | --- | | 38 http://www.edhelperclipart.com/clipart/fractdiv2.gif 38 | | |

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| --- |
| **Answer Key 0199654** |

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| --- |
| **Write each ratio in three ways. Write your answer in simplest form.** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 1. | http://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gif circles to triangles   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **1 to 1** | **,** | **1:1** | **,** | |  | | --- | | **1 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1** | | | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 2. | http://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gif squares to total   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **5 to 8** | **,** | **5:8** | **,** | |  | | --- | | **5 http://www.edhelperclipart.com/clipart/fractdiv1.gif 8** | | | |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 3. | http://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gif circle to all figures   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **1 to 5** | **,** | **1:5** | **,** | |  | | --- | | **1 http://www.edhelperclipart.com/clipart/fractdiv1.gif 5** | | | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 4. | http://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape3.gif total to triangle   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **9 to 1** | **,** | **9:1** | **,** | |  | | --- | | **9 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1** | | | |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 5. | http://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape0.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gif all figures to circles   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **5 to 3** | **,** | **5:3** | **,** | |  | | --- | | **5 http://www.edhelperclipart.com/clipart/fractdiv1.gif 3** | | | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 6. | http://www.edhelperclipart.com/clipart/geom/ratioshape3.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gifhttp://www.edhelperclipart.com/clipart/geom/ratioshape4.gif squares to triangle   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **9 to 1** | **,** | **9:1** | **,** | |  | | --- | | **9 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1** | | | |

**Write each ratio in three ways. Write your answer in simplest form.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 7. | 14 black marbles, 11 blue marbles, and 5 violet marbles  ratio of blue marbles to violet marbles   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **11 to 5** | **,** | **11:5** | **,** | |  | | --- | | **11 http://www.edhelperclipart.com/clipart/fractdiv2.gif 5** | | | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 8. | 9 blue marbles, 3 brown marbles, and 15 violet marbles  ratio of all the marbles to violet marbles   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **9 to 5** | **,** | **9:5** | **,** | |  | | --- | | **9 http://www.edhelperclipart.com/clipart/fractdiv1.gif 5** | | | |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 9. | 19 brown marbles and 3 violet marbles  ratio of violet marbles to brown marbles   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **3 to 19** | **,** | **3:19** | **,** | |  | | --- | | **3 http://www.edhelperclipart.com/clipart/fractdiv2.gif 19** | | | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 10. | 14 black marbles, 4 blue marbles, 11 brown marbles, and 19 violet marbles  ratio of all the marbles to violet marbles   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **48 to 19** | **,** | **48:19** | **,** | |  | | --- | | **48 http://www.edhelperclipart.com/clipart/fractdiv2.gif 19** | | | |

**Complete each ratio table.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 11. | |  |  |  |  | | --- | --- | --- | --- | | 17 | **51** | **68** | 136 | | 11 | 33 | 44 | **88** | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 12. | |  |  |  |  | | --- | --- | --- | --- | | 3 | 6 | **9** | 12 | | 4 | **8** | 12 | **16** | | |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 13. | |  |  |  |  | | --- | --- | --- | --- | | 7 | **28** | 56 | 63 | | 8 | 32 | **64** | **72** | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 14. | |  |  |  |  | | --- | --- | --- | --- | | 3 | **6** | **12** | 18 | | 1 | 2 | 4 | **6** | | |

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| --- |
| **Answer Key 0199654** |

|  |
| --- |
| **Complete each ratio table.** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 15. | |  |  |  |  | | --- | --- | --- | --- | | 18 | 144 | **162** | **54** | | **19** | 152 | 171 | 57 | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 16. | |  |  |  |  | | --- | --- | --- | --- | | 120 | 12 | **72** | 24 | | 70 | **7** | 42 | **14** | | |
| |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 17. | |  |  |  |  | | --- | --- | --- | --- | | 45 | 90 | **15** | 120 | | **51** | 102 | 17 | **136** | | | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 18. | |  |  |  |  | | --- | --- | --- | --- | | 10 | **80** | 20 | **30** | | 3 | 24 | **6** | 9 | | |

**Write five equivalent ratios for each ratio.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | 19. | |  |  | | --- | --- | | 52:20 | **Answers will vary** | | | |  |  |  |  | | --- | --- | --- | --- | | 20. | |  |  | | --- | --- | | 8 to 10 | **Answers will vary** | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 21. | |  |  |  | | --- | --- | --- | | |  | | --- | | 9 http://www.edhelperclipart.com/clipart/fractdiv2.gif 13 | | **Answers will vary** | | |
| |  |  |  |  | | --- | --- | --- | --- | | 22. | |  |  | | --- | --- | | 16:4 | **Answers will vary** | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 23. | |  |  |  | | --- | --- | --- | | |  | | --- | | 6 http://www.edhelperclipart.com/clipart/fractdiv1.gif 9 | | **Answers will vary** | | | |  |  |  |  | | --- | --- | --- | --- | | 24. | |  |  | | --- | --- | | 19 to 6 | **Answers will vary** | | |
| |  |  |  |  | | --- | --- | --- | --- | | 25. | |  |  | | --- | --- | | 10 to 19 | **Answers will vary** | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 26. | |  |  |  | | --- | --- | --- | | |  | | --- | | 20 http://www.edhelperclipart.com/clipart/fractdiv2.gif 18 | | **Answers will vary** | | | |  |  |  |  | | --- | --- | --- | --- | | 27. | |  |  | | --- | --- | | 30 to 40 | **Answers will vary** | | |

**Write each ratio in simplest form.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 28. | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | 10 http://www.edhelperclipart.com/clipart/fractdiv2.gif 14 | | |  | | --- | | **5 http://www.edhelperclipart.com/clipart/fractdiv1.gif 7** | | | | |  |  |  |  | | --- | --- | --- | --- | | 29. | |  |  | | --- | --- | | 12:36 | **1:3** | | | |  |  |  |  | | --- | --- | --- | --- | | 30. | |  |  | | --- | --- | | 9:17 | **9:17** | | | |  |  |  |  | | --- | --- | --- | --- | | 31. | |  |  | | --- | --- | | 6:12 | **1:2** | | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 32. | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | 32 http://www.edhelperclipart.com/clipart/fractdiv2.gif 48 | | |  | | --- | | **2 http://www.edhelperclipart.com/clipart/fractdiv1.gif 3** | | | |
| |  |  |  |  | | --- | --- | --- | --- | | 33. | |  |  | | --- | --- | | 5 to 15 | **1 to 3** | | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 34. | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | 65 http://www.edhelperclipart.com/clipart/fractdiv2.gif 55 | | |  | | --- | | **13 http://www.edhelperclipart.com/clipart/fractdiv2.gif 11** | | | | |  |  |  |  | | --- | --- | --- | --- | | 35. | |  |  | | --- | --- | | 16:6 | **8:3** | | | |  |  |  |  | | --- | --- | --- | --- | | 36. | |  |  | | --- | --- | | 48 to 48 | **1 to 1** | | | |  |  |  |  | | --- | --- | --- | --- | | 37. | |  |  | | --- | --- | | 12 to 8 | **3 to 2** | | |
| |  |  |  |  | | --- | --- | --- | --- | | 38. | |  |  | | --- | --- | | 11 to 20 | **11 to 20** | | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 39. | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | 30 http://www.edhelperclipart.com/clipart/fractdiv2.gif 48 | | |  | | --- | | **5 http://www.edhelperclipart.com/clipart/fractdiv1.gif 8** | | | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 40. | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | 14 http://www.edhelperclipart.com/clipart/fractdiv2.gif 42 | | |  | | --- | | **1 http://www.edhelperclipart.com/clipart/fractdiv1.gif 3** | | | | |  |  |  |  | | --- | --- | --- | --- | | 41. | |  |  | | --- | --- | | 6:38 | **3:19** | | | |  |  |  |  | | --- | --- | --- | --- | | 42. | |  |  | | --- | --- | | 60:28 | **15:7** | | |

**State whether the ratios are proportional. Write *yes* or *no*.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 43. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 30 http://www.edhelperclipart.com/clipart/fractdiv2.gif 5 | | = | |  | | --- | | 6 http://www.edhelperclipart.com/clipart/fractdiv2.gif 10 | | | **no** | | | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 44. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 1 http://www.edhelperclipart.com/clipart/fractdiv2.gif 10 | | = | |  | | --- | | 4 http://www.edhelperclipart.com/clipart/fractdiv2.gif 40 | | | **yes** | | | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 45. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 9 http://www.edhelperclipart.com/clipart/fractdiv1.gif 4 | | = | |  | | --- | | 8 http://www.edhelperclipart.com/clipart/fractdiv2.gif 18 | | | **no** | | | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 46. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 3 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1 | | = | |  | | --- | | 17 http://www.edhelperclipart.com/clipart/fractdiv2.gif 15 | | | **no** | | |
| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 47. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 52 http://www.edhelperclipart.com/clipart/fractdiv2.gif 42 | | = | |  | | --- | | 35 http://www.edhelperclipart.com/clipart/fractdiv2.gif 25 | | | **no** | | | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 48. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 6 http://www.edhelperclipart.com/clipart/fractdiv1.gif 9 | | = | |  | | --- | | 20 http://www.edhelperclipart.com/clipart/fractdiv2.gif 30 | | | **yes** | | | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 49. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 36 http://www.edhelperclipart.com/clipart/fractdiv2.gif 13 | | = | |  | | --- | | 39 http://www.edhelperclipart.com/clipart/fractdiv2.gif 12 | | | **no** | | | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 50. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 36 http://www.edhelperclipart.com/clipart/fractdiv2.gif 12 | | = | |  | | --- | | 33 http://www.edhelperclipart.com/clipart/fractdiv2.gif 11 | | | **yes** | | |

**State whether the ratios are proportional. Write *yes* or *no*.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 51. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | 2 to 4 | , | 2 to 1 | | **no** | | | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 52. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 2 http://www.edhelperclipart.com/clipart/fractdiv1.gif 5 | | = | |  | | --- | | 20 http://www.edhelperclipart.com/clipart/fractdiv2.gif 50 | | | **yes** | | | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 53. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 11 http://www.edhelperclipart.com/clipart/fractdiv2.gif 8 | | = | |  | | --- | | 33 http://www.edhelperclipart.com/clipart/fractdiv2.gif 24 | | | **yes** | | |
| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 54. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 3 http://www.edhelperclipart.com/clipart/fractdiv2.gif 10 | | = | |  | | --- | | 20 http://www.edhelperclipart.com/clipart/fractdiv2.gif 6 | | | **no** | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 55. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | 40 to 39 | , | 10 to 9 | | **no** | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 56. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | 35:21 | , | 15:9 | | **yes** | | |

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| **Answer Key 0199654** |

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| **Find the missing number.** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 57. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 8 http://www.edhelperclipart.com/clipart/fractdiv1.gif **9** | | = | |  | | --- | | 40 http://www.edhelperclipart.com/clipart/fractdiv2.gif 45 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 58. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 11 http://www.edhelperclipart.com/clipart/fractdiv2.gif 4 | | = | |  | | --- | | **22** http://www.edhelperclipart.com/clipart/fractdiv1.gif 8 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 59. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 10 http://www.edhelperclipart.com/clipart/fractdiv2.gif 6 | | = | |  | | --- | | 5 http://www.edhelperclipart.com/clipart/fractdiv1.gif **3** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 60. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **1** http://www.edhelperclipart.com/clipart/fractdiv1.gif 3 | | = | |  | | --- | | 2 http://www.edhelperclipart.com/clipart/fractdiv1.gif 6 | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 61. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 36 http://www.edhelperclipart.com/clipart/fractdiv2.gif 16 | | = | |  | | --- | | **9** http://www.edhelperclipart.com/clipart/fractdiv1.gif 4 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 62. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 25 http://www.edhelperclipart.com/clipart/fractdiv2.gif 20 | | = | |  | | --- | | 35 http://www.edhelperclipart.com/clipart/fractdiv2.gif **28** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 63. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 40 http://www.edhelperclipart.com/clipart/fractdiv2.gif 12 | | = | |  | | --- | | **50** http://www.edhelperclipart.com/clipart/fractdiv2.gif 15 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 64. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **42** http://www.edhelperclipart.com/clipart/fractdiv2.gif 36 | | = | |  | | --- | | 7 http://www.edhelperclipart.com/clipart/fractdiv1.gif 6 | | | |

**Find the missing number.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 65. | |  |  |  | | --- | --- | --- | | 5:8 | = | 25:**40** | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 66. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 2 http://www.edhelperclipart.com/clipart/fractdiv1.gif **3** | | = | |  | | --- | | 4 http://www.edhelperclipart.com/clipart/fractdiv1.gif 6 | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 67. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **45** http://www.edhelperclipart.com/clipart/fractdiv2.gif 20 | | = | |  | | --- | | 9 http://www.edhelperclipart.com/clipart/fractdiv1.gif 4 | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 68. | |  |  |  | | --- | --- | --- | | 9:11 | = | 18:**22** | | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 69. | |  |  |  | | --- | --- | --- | | 18 to **3** | = | 36 to 6 | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 70. | |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | 10 http://www.edhelperclipart.com/clipart/fractdiv2.gif 20 | | = | |  | | --- | | 22 http://www.edhelperclipart.com/clipart/fractdiv2.gif **44** | | | |

**Create a proportion from each set of numbers.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 71. | 2, 1, 50, 25   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **2 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1** | | **=** | |  | | --- | | **50 http://www.edhelperclipart.com/clipart/fractdiv2.gif 25** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 72. | 2, 23, 1, 46   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **2 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1** | | **=** | |  | | --- | | **46 http://www.edhelperclipart.com/clipart/fractdiv2.gif 23** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 73. | 6, 1, 36, 6   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **36 http://www.edhelperclipart.com/clipart/fractdiv2.gif 6** | | **=** | |  | | --- | | **6 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1** | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 74. | 24, 28, 6, 7   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **6 http://www.edhelperclipart.com/clipart/fractdiv1.gif 7** | | **=** | |  | | --- | | **24 http://www.edhelperclipart.com/clipart/fractdiv2.gif 28** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 75. | 18, 27, 14, 21   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **18 http://www.edhelperclipart.com/clipart/fractdiv2.gif 27** | | **=** | |  | | --- | | **14 http://www.edhelperclipart.com/clipart/fractdiv2.gif 21** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 76. | 8, 12, 28, 42   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **8 http://www.edhelperclipart.com/clipart/fractdiv2.gif 12** | | **=** | |  | | --- | | **28 http://www.edhelperclipart.com/clipart/fractdiv2.gif 42** | | | |

**Create a proportion from each set of numbers.  Only use 4 numbers from each set of numbers.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 77. | 28, 10, 7, 26, 40   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **7 http://www.edhelperclipart.com/clipart/fractdiv2.gif 10** | | **=** | |  | | --- | | **28 http://www.edhelperclipart.com/clipart/fractdiv2.gif 40** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 78. | 45, 5, 1, 43, 9   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **1 http://www.edhelperclipart.com/clipart/fractdiv1.gif 9** | | **=** | |  | | --- | | **5 http://www.edhelperclipart.com/clipart/fractdiv2.gif 45** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 79. | 46, 16, 1, 4, 4   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **1 http://www.edhelperclipart.com/clipart/fractdiv1.gif 4** | | **=** | |  | | --- | | **4 http://www.edhelperclipart.com/clipart/fractdiv2.gif 16** | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 80. | 34, 12, 7, 21, 4   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **12 http://www.edhelperclipart.com/clipart/fractdiv2.gif 21** | | **=** | |  | | --- | | **4 http://www.edhelperclipart.com/clipart/fractdiv1.gif 7** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 81. | 5, 50, 20, 1, 10   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **10 http://www.edhelperclipart.com/clipart/fractdiv2.gif 1** | | **=** | |  | | --- | | **50 http://www.edhelperclipart.com/clipart/fractdiv2.gif 5** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 82. | 25, 20, 35, 10, 8   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **25 http://www.edhelperclipart.com/clipart/fractdiv2.gif 20** | | **=** | |  | | --- | | **10 http://www.edhelperclipart.com/clipart/fractdiv2.gif 8** | | | |

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| **Answer Key 0199654** |

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| **Create a proportion from each set of numbers.  Only use 4 numbers from each set of numbers.** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 83. | 44, 10, 51, 40, 11, 36   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **44 http://www.edhelperclipart.com/clipart/fractdiv2.gif 40** | | **=** | |  | | --- | | **11 http://www.edhelperclipart.com/clipart/fractdiv2.gif 10** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 84. | 9, 41, 14, 18, 7, 52   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **14 http://www.edhelperclipart.com/clipart/fractdiv2.gif 18** | | **=** | |  | | --- | | **7 http://www.edhelperclipart.com/clipart/fractdiv1.gif 9** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 85. | 45, 13, 3, 50, 5, 27   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **5 http://www.edhelperclipart.com/clipart/fractdiv1.gif 3** | | **=** | |  | | --- | | **45 http://www.edhelperclipart.com/clipart/fractdiv2.gif 27** | | | |
| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 86. | 4, 49, 8, 2, 1, 45   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **2 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1** | | **=** | |  | | --- | | **8 http://www.edhelperclipart.com/clipart/fractdiv1.gif 4** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 87. | 18, 3, 14, 7, 42, 56   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **3 http://www.edhelperclipart.com/clipart/fractdiv2.gif 18** | | **=** | |  | | --- | | **7 http://www.edhelperclipart.com/clipart/fractdiv2.gif 42** | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 88. | 50, 25, 12, 20, 32, 40   |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **20 http://www.edhelperclipart.com/clipart/fractdiv2.gif 25** | | **=** | |  | | --- | | **40 http://www.edhelperclipart.com/clipart/fractdiv2.gif 50** | | | |

**Fill in the blank.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 89. | 740 meters in 10 seconds  =  **148** meters in 2 seconds | | |  |  | | --- | --- | | 90. | 374 miles in 1 hour  =  **1,122** miles in 3 hours | |
| |  |  | | --- | --- | | 91. | 66 seats in 3 rows  =  **264** seats in 12 rows | | |  |  | | --- | --- | | 92. | 1,168 pages in 8 days  =  **584** pages in 4 days | |
| |  |  | | --- | --- | | 93. | 8 calls in 4 hours  =  **32** calls in 16 hours | | |  |  | | --- | --- | | 94. | 20 calls in 5 hours  =  **4** calls in 1 hour | |

**Find the unit rate.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 95. | 40 seats in 5 rows **8 seats in 1 row** | | |  |  | | --- | --- | | 96. | 934 miles in 2 hours **467 miles in 1 hour** | |
| |  |  | | --- | --- | | 97. | 984 meters in 12 seconds **82 meters in 1 second** | | |  |  | | --- | --- | | 98. | 8 calls in 4 hours **2 calls in 1 hour** | |
| |  |  | | --- | --- | | 99. | 1,170 pages in 9 days **130 pages in 1 day** | | |  |  | | --- | --- | | 100. | 3,864 miles in 8 hours **483 miles in 1 hour** | |

**Fill in the blank.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | 101. | 30 calls in 6 hours  =  **50** calls in 10 hours | | |  |  | | --- | --- | | 102. | 224 meters in 4 seconds  =  **392** meters in 7 seconds | |
| |  |  | | --- | --- | | 103. | 126 seats in 9 rows  =  **140** seats in 10 rows | | |  |  | | --- | --- | | 104. | 1,230 miles in 3 hours  =  **4,920** miles in 12 hours | |
| |  |  | | --- | --- | | 105. | 850 pages in 10 days  =  **680** pages in 8 days | | |  |  | | --- | --- | | 106. | 660 meters in 11 seconds  =  **540** meters in 9 seconds | |

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| **Answer Key 0199654** |

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| **Circle the better buy. Explain why it is the better buy.** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 107. | |  |  |  | | --- | --- | --- | | **35 batteries for $41.30** |  | 39 batteries for $58.11 |  |  |  |  | | --- | --- | --- | | $1.18 each |  | $1.49 each | | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 108. | |  |  |  | | --- | --- | --- | | **11 calculators for $198** |  | 21 calculators for $525 |  |  |  |  | | --- | --- | --- | | $18 each |  | $25 each | | |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 109. | |  |  |  | | --- | --- | --- | | **$11.10 for 37 ounces** |  | $9.88 for 26 ounces |  |  |  |  | | --- | --- | --- | | $0.30 each |  | $0.38 each | | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 110. | |  |  |  | | --- | --- | --- | | **$52.49 for 29 batteries** |  | $3.86 for 2 batteries |  |  |  |  | | --- | --- | --- | | $1.81 each |  | $1.93 each | | |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 111. | |  |  |  | | --- | --- | --- | | 38 staplers for $646 |  | **7 staplers for $84** |  |  |  |  | | --- | --- | --- | | $17 each |  | $12 each | | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 112. | |  |  |  | | --- | --- | --- | | **23 liters for $14.26** |  | 29 liters for $19.72 |  |  |  |  | | --- | --- | --- | | $0.62 each |  | $0.68 each | | |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 113. | |  |  |  | | --- | --- | --- | | $1.84 for 4 ounces |  | **$0.84 for 3 ounces** |  |  |  |  | | --- | --- | --- | | $0.46 each |  | $0.28 each | | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 114. | |  |  |  | | --- | --- | --- | | 19 liters for $8.17 |  | **31 liters for $10.23** |  |  |  |  | | --- | --- | --- | | $0.43 each |  | $0.33 each | | |

**Use a proportion to find the unknown length in the pair of similar figures.  
(*drawings are not drawn to scale*)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 115. | http://www.edhelperclipart.com/clipart/ratiosrec4.gifhttp://www.edhelperclipart.com/clipart/ratiosrec1.gif length of sides:   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | | NO  = | 4 km | | MN  = | 11 km | | PM  = | **4 km** | | OP  = | 11 km | |  | |  |  | | --- | --- | | BC  = | 8 km | | DA  = | 8 km | | AB  = | 22 km | | CD  = | 22 km | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 116. | http://www.edhelperclipart.com/clipart/ratiostri3.gifhttp://www.edhelperclipart.com/clipart/ratiostri1.gif length of sides:   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | | IH  = | 70 yd | | GH  = | 56 yd | | GI  = | **49 yd** | |  | |  |  | | --- | --- | | CB  = | 150 yd | | AB  = | 120 yd | | AC  = | 105 yd | | | |

**Write each ratio in simplest form.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | 117. | |  |  | | --- | --- | | 44 to 48 | **11 to 12** | | | |  |  |  |  | | --- | --- | --- | --- | | 118. | |  |  | | --- | --- | | 12:36 | **1:3** | | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 119. | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | 70 http://www.edhelperclipart.com/clipart/fractdiv2.gif 28 | | |  | | --- | | **5 http://www.edhelperclipart.com/clipart/fractdiv1.gif 2** | | | | |  |  |  |  | | --- | --- | --- | --- | | 120. | |  |  | | --- | --- | | 54 to 51 | **18 to 17** | | | |  |  |  |  | | --- | --- | --- | --- | | 121. | |  |  | | --- | --- | | 2:15 | **2:15** | | |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 122. | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | 3 http://www.edhelperclipart.com/clipart/fractdiv1.gif 3 | | |  | | --- | | **1 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1** | | | | |  |  |  |  | | --- | --- | --- | --- | | 123. | |  |  | | --- | --- | | 42 to 42 | **1 to 1** | | | |  |  |  |  | | --- | --- | --- | --- | | 124. | |  |  | | --- | --- | | 20:6 | **10:3** | | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 125. | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | 12 http://www.edhelperclipart.com/clipart/fractdiv2.gif 3 | | |  | | --- | | **4 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1** | | | | |  |  |  |  | | --- | --- | --- | --- | | 126. | |  |  | | --- | --- | | 60:32 | **15:8** | | |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 127. | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | 25 http://www.edhelperclipart.com/clipart/fractdiv2.gif 45 | | |  | | --- | | **5 http://www.edhelperclipart.com/clipart/fractdiv1.gif 9** | | | | |  |  |  |  | | --- | --- | --- | --- | | 128. | |  |  | | --- | --- | | 9 to 18 | **1 to 2** | | | |  |  |  |  | | --- | --- | --- | --- | | 129. | |  |  | | --- | --- | | 55 to 55 | **1 to 1** | | | |  |  |  |  | | --- | --- | --- | --- | | 130. | |  |  | | --- | --- | | 2 to 10 | **1 to 5** | | | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 131. | |  |  |  |  | | --- | --- | --- | --- | | |  | | --- | | 38 http://www.edhelperclipart.com/clipart/fractdiv2.gif 38 | | |  | | --- | | **1 http://www.edhelperclipart.com/clipart/fractdiv1.gif 1** | | | |